

LISTING OF THE CLAIMS:

1. – 10. (canceled)

11. (previously presented) A detector for detecting thermal radiation in multiple coverage zones, said detector comprising:
a support member structure;
a first thermal detection sensor supported on and thermally coupled to the support member structure and arranged to detect thermal energy in a first coverage zone;
a second thermal detection sensor supported on and thermally coupled to the support member structure for detecting thermal energy in a second coverage zone; and
a single an optical lens supported on and thermally coupled to the support member structure and arranged to direct thermal energy from the first coverage zone to the first thermal detection sensor, and to direct thermal energy from the second coverage zone to the second thermal detection sensor, wherein the support member structure comprises a metallic heat sink maintaining the optical lens and the first and second thermal detection sensors at a substantially common temperature.

12. (original) The detector as defined in claim 11, wherein each of the first and second thermal detection sensors comprises an infrared sensor.

13. (original) The detector as defined in claim 12, wherein the infrared sensor comprises a thermopile sensor.

14. (canceled)

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15. (original) The detector as defined in claim 11, wherein the first and second thermal detection sensors are coupled to the heat sink via a thermally conductive adhesive.

16. (original) The detector as defined in claim 11, wherein the support member structure comprises interior walls extending from the first and second thermal detection sensors to the optical lens and defining a chamber, wherein the interior walls comprise an infrared absorbing material.

17. (original) The detector as defined in claim 11, wherein the detector is located on a vehicle.

18. (previously presented) The detector as defined in claim 17, wherein the detector is located on the vehicle to detect one or more objects in a blind spot region of the vehicle.

19. – 24. (canceled)

25. (new) The detector as defined in claim 1 in wherein the support member comprises aluminum.